

REMARKS-General

1. The newly drafted independent claim 33 incorporates all structural limitations of the original claim 1 and includes further limitations previously brought forth in the disclosure. No new matter has been included. All new claims 33-34 are submitted to be of sufficient clarity and detail to enable a person of average skill in the art to make and use the instant invention, so as to be pursuant to 35 USC 112.

Regarding to Rejection of Claims 26-29 under 35USC102

2. The Examiner rejected claims 26-29 as being anticipated by or in the alternative, as obvious over Hosada (US 6,608,006). Pursuant to 35 U.S.C. 102, "a person shall be entitled to a patent unless:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.

3. In view of 35 U.S.C. 102(b), it is apparent that a person shall not be entitled to a patent when his or her invention was patent in this country more than one year prior to the date of the application for patent in the United States.

4. However, the Hosada et al patent and the instant invention are not the same invention according to the fact that the independent claim 33 of the instant invention does not read upon the Hosada et al patent. Apparently, Hosada et al fails to teach the distinctive features of the instant invention.

5. The claiming subject matter of the instant invention is a shoe lining fitting into an outer shell of footwear. Particularly, the shoe lining of the instant invention has a waterproof and breathable lining structure to produce the shoe lining structure for the boot of the footwear as shown in Figure 1.

6. However, Hosada et al merely discloses a method for producing a foamed polyolefin composite sheet. In column 2, lines 22-25, Hosada et al merely teaches the foamed composite sheet can be used broadly for roofing, wall materials, floorings, various bags, shoe materials, materials used for vehicles, furnitures, etc. The above sentence is the only description in Hosada et al regarding to footwear. It is apparent

that Hosada et al fails to teach and anticipate the same recitation and limitation in the claim 33 of the instant invention of forming a shoe lining in such a manner the lining structure of prolonged durability, the thickness of the outer shell of the boot could be substantially reduced and materials source of the outer shell could be broadened as mentioned in the specification.

7. Hosada et al fails to teach and anticipate the same recitation and limitation in the claim 33 of the instant invention of having a plurality of interior linings cut into a boot shape and seamed together to form the shoe lining for fitting into the outer shell of the boot. In Figure 1 and page 8 of the specification, the instant invention particularly points out the boot-shaped linings are seamed along the stitching edges to form the boot-shaped shoe lining.

8. In addition, Hosada et al is silent regarding the stitching edges of the interior linings are thermoplastically sealed to form the shoe lining. As shown in Figure 1 of the instant invention, two interior linings, which have a boot shape, are overlapped and seamed together by thermoplastically sealing the stitching edges of the interior linings. Therefore, a foot cavity is formed between the interior linings.

9. Hosada et al fails neither suggest nor anticipate the interior lining of the shoe lining consist of sheet-like waterproof and air breathable foaming cushion layer, a lining layer and a cover layer such that when the interior linings are seamed together along the stitching edges, the interior linings form the shoe lining for fitting into the outer shell of the boot.

10. Hosada et al fails neither suggest nor anticipate the foaming cushion layer is made of a **composition** of low density polyethylene, a predetermined amount of azodicarbonamide as a foaming agent, pigment and additives including Zinc oxide and Zinc Stearate integrally mixing with the low density polyethylene and the foaming agent. In other words, the foamed composite sheet of Hosada et al is not equivalent to the foaming cushion layer of the instant invention made of the particular composition to form the shoe lining.

11. Hosada et al fails neither suggest nor anticipate the low density foaming cushion layer is made by irradiation technology that polyolefin molecules are crosslinked by electron-beam irradiation and are foamed at normal atmosphere and high temperature

to have water repellant and air breathable properties. Hosada et al merely teaches the foam composite sheet is made by heat-treating a mixture of solid crystalline thermoplastic polyolefin with a cross-linking agent without any irradiation to form the low density foam composite sheet.

12. Accordingly, Hosada et al fails to anticipate or suggest the shoe lining of the instant invention as claimed in claim 33.

Response to Rejection of Claims 30-32 under 35USC103

13. The Examiner rejected claims 30-32 over Hosada et al in view of Nakae et al (US 4,446,254). Pursuant to 35 U.S.C. 103:

“(a) A patent may not be obtained though the invention is **not identically** disclosed or described as set forth in **section 102 of this title**, if the **differences** between the subject matter sought to be patented and the prior art are such that the **subject matter as a whole would have been obvious** at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.”

14. In view of 35 U.S.C. 103(a), it is apparent that to be qualified as a prior art under 35USC103(a), the prior art must be cited under 35USC102(a)~(g) but the disclosure of the prior art and the invention are not identical and there are one or more differences between the subject matter sought to be patented and the prior art. In addition, such differences between the subject matter sought to be patented **as a whole** and the prior art are obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

15. In other words, the differences between the subject matter sought to be patent as a whole of the instant invention and Hosada et al which is qualified as prior art of the instant invention under 35USC102(b) are obvious in view of Nakae et al at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains.

16. However, as recited above, Hosada et al merely discloses a method for producing a foamed polyolefin composite sheet without any mention of how to form a

shoe lining by cutting the interior linings into a boot shape and thermoplastically sealing the stitching edges of the interior linings to form the shoe lining for fitting into the outer shell of the boot.

17. Therefore, the difference between Hosada et al and the instant invention as claimed in claims 33 to 34 is not limited to the disclosure of "foaming material", but includes the distinctive features of the instant invention as follows:

(i) A plurality of interior linings are cut into a boot shape corresponding to the outer shell of the boot.

(ii) The interior linings are seamed together that stitching edges of the interior linings are thermoplastically sealed to form the shoe lining for fitting into the outer shell of a boot.

(iii) Each of the interior linings consists of a sheet-like waterproof and air breathable foaming cushion layer, a lining layer integrally attached to one side of the foaming cushion layer, and a cover layer integrally attached to another side of the foaming cushion layer.

(iv) The foaming cushion layer is made of a composition of low density polyethylene, a predetermined amount of azodicarbonamide as a foaming agent, pigment and additives including Zinc oxide and Zinc Stearate integrally mixing with the low density polyethylene and the foaming agent.

(v) The foaming cushion layer is made by irradiation technology that polyolefin molecules are crosslinked by electron-beam irradiation and are foamed at normal atmosphere and high temperature to have water repellant and air breathable properties.

(vi) The foaming cushion layer is made by irradiation technology comprising the steps of palletizing raw materials; extruding the palletized raw materials to make a solid sheet; cross-linking said solid sheet by an electron-beam to form an irradiated matrix; and foaming the irradiated matrix into the sheet-like foaming cushion layer. The applicant respectfully submits the foaming cushion layer, containing low density

polyethylene, azodicarbonamide, pigment, Zinc oxide and Zinc Stearate, is made of the above manufacturing process to form the interior lining for the shoe.

(vii) A ration of said polyethylene, said azodicarbonamide, said pigment and said additives is 100phr, 18phr, 0.1phr, 0.1phr, and 1.0phr.

18. Whether the claims 33 to 34 as amended of the instant invention are obvious depends on whether the above differences (i) to (vii) between the instant invention and Hosada et al are obvious in view of Nakae et al at the time of the invention was made.

19. Furthermore, the applicant respectfully submits that when applying 35 USC 103, the following tenets of patent law must be adhered to:

- (a) The claimed invention must be considered as a whole;
- (b) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination;
- (c) The references must be viewed without the benefit of hindsight vision afforded by the claimed invention; and
- (d) Reasonable expectation of success is the standard with which obviousness is determined.

Also, "The mere fact that a reference could be modified to produce the patented invention would not make the modification obvious unless it is suggested by the prior art." Libbey-Owens-Ford v. BOC Group, 4 USPQ 2d 1097, 1103 (DCNJ 1987).

20. Nakae merely teaches zinc stearate and lead stearate are appropriate and exhibit a combination of effects of increasing the expansion ratio and decreasing the optimum irradiation dose necessary for providing the foams having a high degree of expansion without any suggestion of how such zinc stearate and lead stearate be possibly to form a foaming cushion layer as part of the shoe lining that stitching edges of the foaming cushion layers are thermoplastically sealed to form the shoe lining for fitting into the outer shell of the boot.

21. "To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the

references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited art references for combination in the manner claimed... [T]he suggestion to combine requirement stands as a critical safeguard against hindsight analysis and rote application of the legal test for obviousness..." *In re Gorman*, 933 F.2d 982, 986, 18 USPQ 2d 1885, 1888 (Fed. Cir. 1991).

Commercial Success

22. Attached hereto is a Rule 132 Declaration by the inventor or assignee, Frank Tien, of the present application.

23. Frank Tien currently makes and sells shoe lining embodying the subject matter of the '728 application's claims 33-34. This shoe lining is sold under the trademark Aquashield Bootie. As shown in Attachment 1, over **1,957,630 pairs** and the total sales of **USD36,230,266.74** of the instant invention were sold between Year 2004 and Year 2006.

24. The applicant believes that, an important reason for the commercial success of the shoe lining is its superior waterproof and air breathable characteristics, which has been expressed in claims 33-34 of the '728 application. According to the applicant's knowledge no other commercially available shoe lining has achieved such standout characteristics as mentioned above.

25. The Rule 132 Declaration sets forth in detail evidence of the commercial success, which is a shoe lining embodying claims 33-34 made and sold by the applicant. Based on this evidence, which both rebuts the *prima facie* of obviousness and establishes an important secondary factor of non-obviousness, namely commercial success, the Examiner is requested to reconsider and withdraw the obviousness rejection made against claims 33-34.

26. Practically speaking, the instant invention as claimed in the newly drafted claims 33 to 34 contains structural features different to each of the cited arts. The instant invention is already successfully marketed in the United States. The volume of sale substantially proves that hundred and thousand of consumers satisfy with the structural

features of the instant invention. Regardless of the structural features different from the cited arts is distinctive or obvious, if the instant invention fails to obtain a patent with claims for limited protection, everybody in this industry (including the applicants of the cited arts) can simply copy the structural features of the instant invention without the need of investing any research and development cost but to compete with the applicant in lower product cost in the applicant's market. It is not only an unfair competition but also violates the spirit of encouraging invention and technology development of the patent law. Accordingly, a secondary factor of commercial success for non-obviousness is established and the Examiner is requested to reconsider and withdraw the obviousness rejection made against claims 33-34.

27. The Examiner noted that the previously submitted Declaration fails to determine that the commercial success alleged is directly derived from the invention claimed. The Attachment 1 shows the updated and detailed sale records including the year sale, customer name, brand, style, quantity, and total sales regarding the shoe lining of the instant invention. The Examiner alleges that in a marketplace where the consumer is free to choose on the basis of objective principles, success may be the result of heavy promotion or advertising, shift in advertising, consumption by purchasers normally tied to applicant or assignee, or other business events extraneous to the merits of the claimed invention, etc. The applicant, Frank Tien as the inventor of the instant invention and the shoe manufacturer, respectfully submits that my company as the shoe manufacturing company has great success in selling the shoe because the shoe contains the shoe lining of the instant invention. The shoes, including the waterproof hunting boot, waterproof steel toe workboot, waterproof workboot, waterproof hiker, are sold to "Cabela's", "Academy Sports & Outdoors", and "Wal-Mart" Stores. Since my company is not a shoe retailer, my company does not need to and cannot afford to have heavy promotion or advertising. In fact, the customer purchases the shoes containing the shoe lining of the instant invention because of the distinctive features of the shoe lining of the instant invention. If the instant invention fails to obtain a patent with claims for limited protection of **the shoe lining only**, not only everybody in the shoe industry can simply copy the structural features of the instant invention but also my company may loss all the purchase orders to other shoe manufacturers who copy the structural features of the instant invention.

The Cited but Non-Applied References

28. The cited but not relied upon references have been studied and are greatly appreciated, but are deemed to be less relevant than the relied upon references.

29. Attached herewith are Rule 132 Declaration for Commercial Success and Attachment 1 of Sale Records.

30. In view of the above, it is submitted that the claims are in condition for allowance. Reconsideration and withdrawal of the objection are requested. Allowance of claims 33 to 34 at an early date is solicited.

31. Should the Examiner believe that anything further is needed in order to place the application in condition for allowance, he is requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that this corresponding is being deposited with the United States Postal Service by First Class Mail, with sufficient postage, in an envelope addressed to "Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on the date below.

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